

PATENT CLAIMS

1. Process for the production of surface-finished paper or board (B_w), characterized in that an aqueous solution (L_w) of a surface-finishing active ingredient (W) is applied to a hydrophilic paper or board sheet (B), in which (W) consists of

(W_1) polyethylene glycol with an average molecular weight \bar{M}_w of > 1500 and optionally at least one further additive which is a further finishing additive and/or a formulation additive,

and the paper or board sheet surface-treated with (L_w) is fed through smoothing rolls and dried.

Sub B1

2. Process according to Claim 1, characterized in that (W) consists of at least 30 % by weight of (W_1) and any remainder to 100 % by weight of at least one further of the finishing additives (W_2) and (W_3) and/or formulation additives (W_4), in which

(W_2) is at least one dye and/or optical brightener,

(W_3) is at least one wet strength additive

and (W_4) is at least one agent for pH adjustment.

Sub A

3. Process according to Claim 1 or 2, characterized in that (W) contains at least one non-finishing formulation additive (F).

Sub B2

4. Process according to ~~one of Claims 1 to 3~~ ^{claim 1}, characterized in that (L_w) essentially consists of (W) and water.

Sub A

5. Process according to ~~one of Claims 1 to 4~~ ^{claim 1}, at a line pressure of the smoothing rolls in the range of 8 to 500 KN/m.

Sub A

6. Process according to ~~one of Claims 1 to 5~~ ^{claim 1}, characterized in that the paper or board sheet surface-treated with (L_w) is calendered.

Sub A

7. Surface finishing agent for paper or board which is a solution (L_w) as defined in Claim 4, wherein (F) is selected from,

(F_{11}) antifoams

and (F_{12}) agents for protecting against the damaging effect of microorganisms,

and with a (W_1)-content in the range of 0.1 to 20 %.

Sub B3

bc2

8. Surface finishing agent according to Claim 7 which is an antiyellowing agent for paper or board.

A

9. Paper or board (B_w) surface-finished in accordance with any ~~one of Claims 1 to 6~~.

Claim 1

10. Paper or board (B_w) according to Claim 9 which is essentially size-free and is simultaneously intaglio printing and offset printing paper or board.

Sub B4
A

11. Process for the production of graphically processed paper or board by application of at least one graphic ink pattern to a substrate of paper or board, and drying, characterized in that the substrate used for this purpose is surface-finished paper (B_w) or surface-finished board (B_w) according to Claim 8 ~~and~~.

Claim B5